Inova-bg Ltd.

IP Tau

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1. Main features

IP Tau is a communication device with the main purpose to transmit data from security panels and/or sensors through IP based network. Using the advantages of communication technologies IP Tau provides the most secure connection with monitoring center using various ways of back-up – 2 main servers with a backup server each.

Features:

- Power supply 12VDC (8,5V to 16V)
- Low power consumption
- Protocols – Ademco ContactID, LARS
- Network interface - IEEE 802.3 Ethernet, Fully Compatible with 10/100/1000Base-T Networks
- Static or dynamic IP address compatible with DHCP server
- Capability to use one or two fully independent IP servers
- Verification with an unique ID code
- HTML server for easy configuration and status check, protected with an username and a password
- Capability to change the username and password of the html server
- Indication (4 LEDs) for:
  - o Power Supply
  - o LAN Status - Ethernet available
  - o LAN Activity – Network packets service
  - o Server LED – Established connection with IP server/s – when using 1 server - 'ON' when connection is established. When using 2 servers - 'ON' when connection is established with both servers, blinks if connection is established with only one server , 'OFF' when connection isn't established with both servers
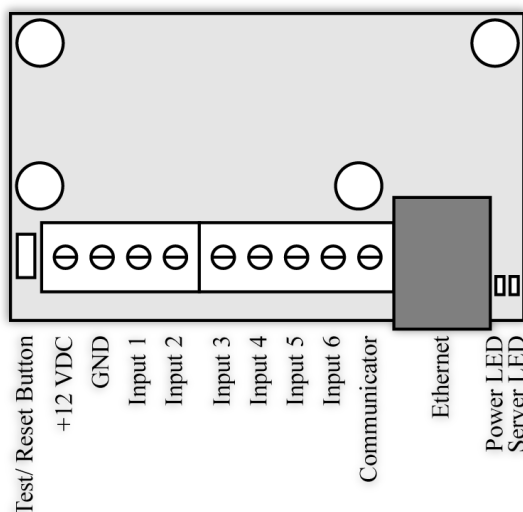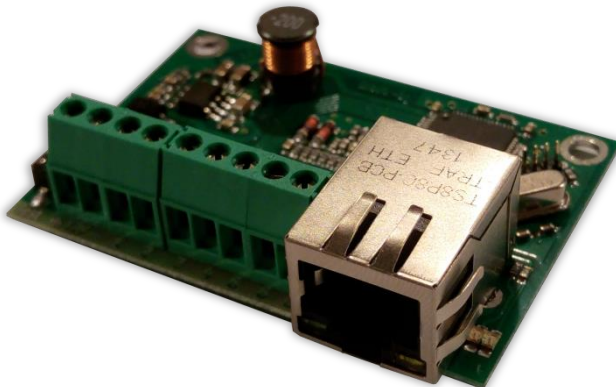
- Encrypted connection with IP servers
- Six digital inputs
- Capability to use communicator as input - using "Ademco Contact ID" protocol
- Configurable working mode for every digital input:
  - Normal Open
  - Normal Close
  - Check for AC voltage from 5V to 20V
  - Deactivated
- Configurable parameters sent for events on each digital input to IP servers

2.   Start working with IP Tau

The default IP address is 192.168.1.230. Make sure that your computer is in the same IP subnet (see Chapter 10. Windows Network configuration). To access the web server for configuration use Internet Explorer (Chrome, Firefox, Opera or any other web browser) and enter the IP Tau's address - **http://192.168.1.230/** (or the new one if you already change it). Alternatively you could write **http://iptau**. If the device is accessible from that computer a connection will be established and you will be prompt to enter username and password:
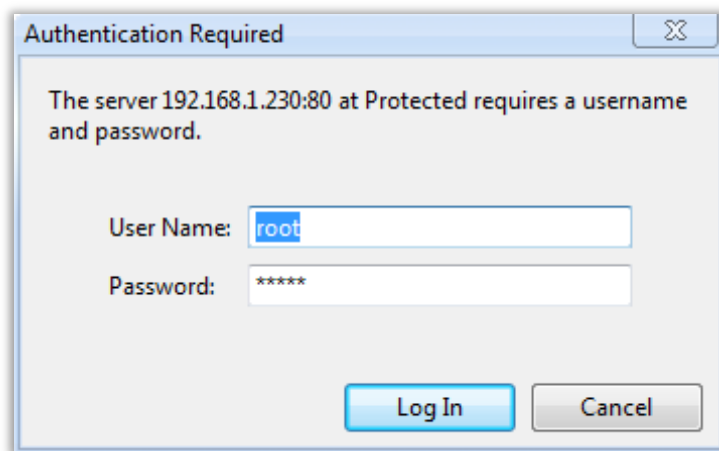
The default settings (which will be recovered after hardware reset) are:

IP Address:	192.168.1.230
Username:	root
Password:	admin

If you enter the right credentials you will have access to the web page for configuration.

3.   Homepage

On the homepage you can find main information about the device, current status of the input voltage, last 5 messages received from the communicator and the current state of each digital input. Through the menu you could select one of the following actions:

Home – Homepage

Device Config – Configuration of the main parameters

Login Config – Configuration of username and password for web-server access

Utility – Test the connection to the servers

About – Contact information

Reboot – Restart the device

4. Configuration of the main parameters
4.1. General settings

Device Name – Enter the name of the device. This value is used only for user convenience – to identify devices if you have more than one connected to one network. Maximum length – 30 symbols.

Protocol – The device can use either **Ademco Contact ID** or **LARS** protocol. When using **Ademco Contact ID** the device can receive data from communicator/dialer.

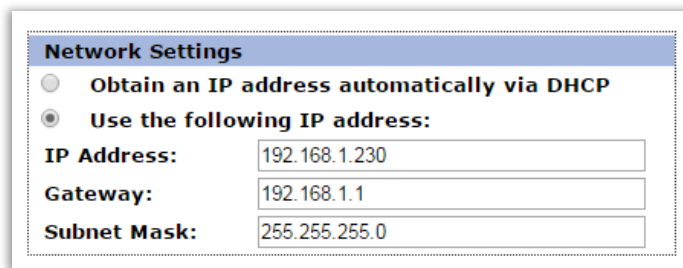**System** (only on LARS protocol) – System number – must range 0 to 3.

Account Number – If working with **Ademco Contact ID** protocol – each of the four symbols must be from 0 to 9 and/or from B to F.
If working with **LARS** protocol - The first 3 symbols must be from 0 to 7. The last symbol must be from 0 to 9 or from A to J. In the monitoring software you can select how to use the last symbol – as a digit or as a letter (the digits 0 to 9 correspond to the letters A to J).

Handshake Delay – According to Ademco Standard this is the delay between phone number dialing(from the control panel) and the Handshake response(from the IP Tau). The default value of 16(16x100ms = 1600ms) is working fine with most of the control panels.

Send message if DC is lower than 10V – Option that enables/disables generating of message if the input voltage drops under 10V.

4.2. General IP settings

IP settings:

Obtain an IP address automatically via DHCP – IP address is received automatically from a DHCP server in the current network. In this case easy way to access the web-server is by entering the following address: http://iptau . If you select this mode but after reboot the device cannot find a dhcp server for more than 10 seconds – IP Tau will load the last saved static address.
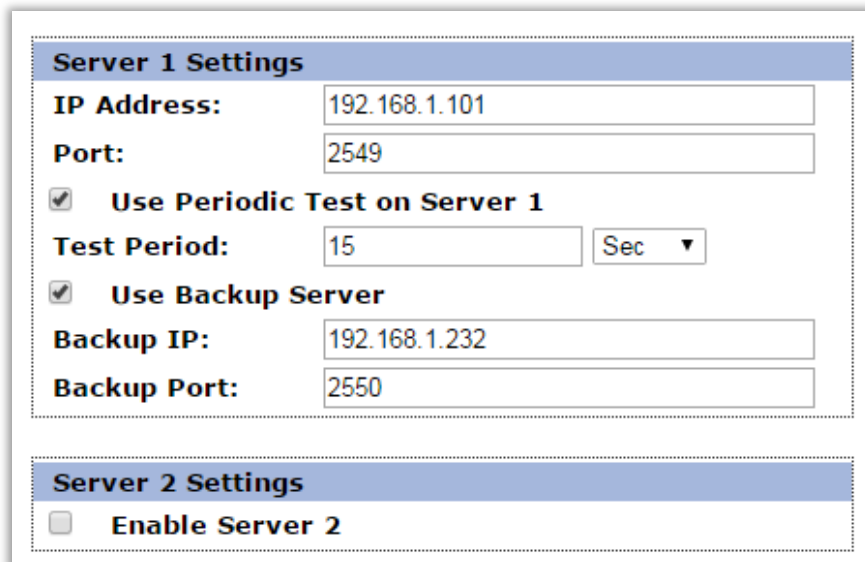
Use the following IP address – IP address and network parameters are set to static

IP Address – IP address

Gateway –Gateway address.

Subnet Mask – Subnet mask of the IP network.

4.3. Settings for the IP Servers

The first group is corresponding to the first monitoring server. You must set the **IP address** and the communication **UDP port**. You can activate the periodic test - **Use Periodic Test on Server 1** and set the period. If **Use Backup Server** option is enabled – a secondary **IP Address** could be set. If the server on the primary address is not available – the device will try to send the data to the backup address. This option is usefull if the server has two addresses from different ISPs.

If you want to use the second server you must enable it - **Enable Server 2 –** and to set the parameters in the same way as for Server1.

4.4. Settings for the digital inputs

According to which protocol is selected, in digital inputs settings different fields will become active/deactive.

Digital inputs can be connected to PGM outputs of security panles or to any different kind of sensors – panic-buttons, tampers and etc. In the **Active State** field you can set the working mode of each input – normal close (N.O.) or normal open (N.C.) contact, check for AC on this input (Hardware AC) or you can disable the input (Not Used). When digital input is connected to PGM or dry contact, for '0' state is accepted value of the resistance to ground less than 300Ω and for active '1' – value more than 1,4KΩ (or open circuit), the hysteresis is between 300Ω and 1,4KΩ. If digital inputs are controlled by voltage for '0' state is accepted value of the voltage to ground less than 0,7V, and for active '1' – value more than 2,6V, the hysteresis is between 0,7V and 2,6V.

Type – Choose a message which will correspond to the change of state of this input

Partition (from 0 to 15) and **Zone** (0 to 255) determines the corresponding parameters for the messages generated from each digital input.

4.5. Saving the new configuration

When you click the Save Config button a validation check is performed. If there is invalid data in one or more fields – they will be colored in red. Additionally under the button **Save Config** a field will be generated – **Error List** – which describes in details the errors and how to fix them. If all the input data are correct IP Tau will save the parameters and will reboot with the new configuration.

5.   Username and password configuration

In **Login Config** menu you can change the username and password used to access the web-server. Maximum length for both fields is 11 symbols. If you forget your credentials you can perform a hardware reset to recover default settings:

Username: root   Password: admin

When you click the Save Config button a validation check is performed. If there is invalid data in one or more fields – they will be colored in red. If all the input data are correct IP Tau will save the parameters and will reboot with the new configuration.

6. Utility
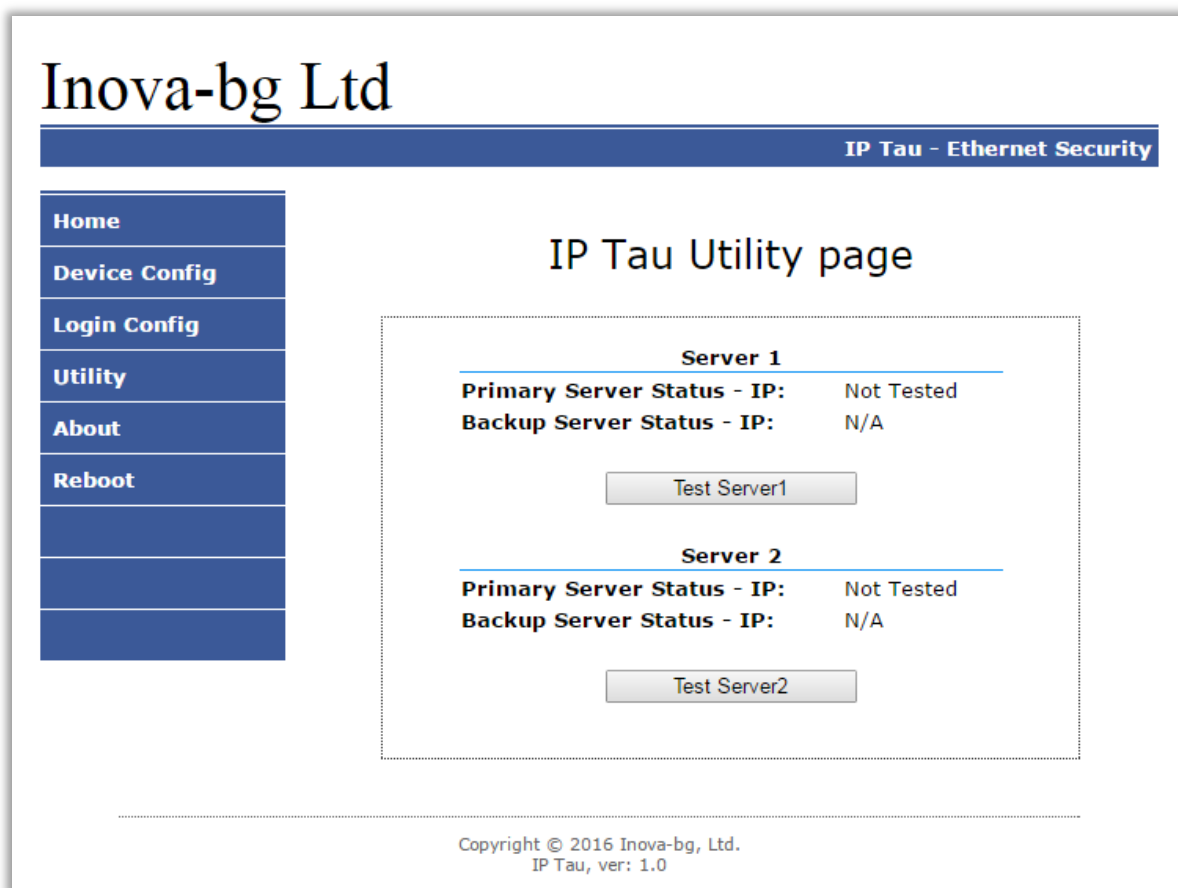
In **Utility** menu, connections to the servers can be tested. When the test button is clicked the device will send test messages to the server. If a backup server is enabled – the device will test this connection also.

7. Reboot

If you choose the **Reboot** menu this will cause the device to restart.

8. Hardware reset

In case you changed the settings and can't reach the device or if you forgot your username or password, IP Tau is capable to return to its factory defaults. For this purpose you must disconnect from power supply, push and hold the button for hardware reset and reconnect to the power supply. Hold the button for 5 seconds until the green LED is blinking. Once the LED goes off you can release the button and connect to the device.
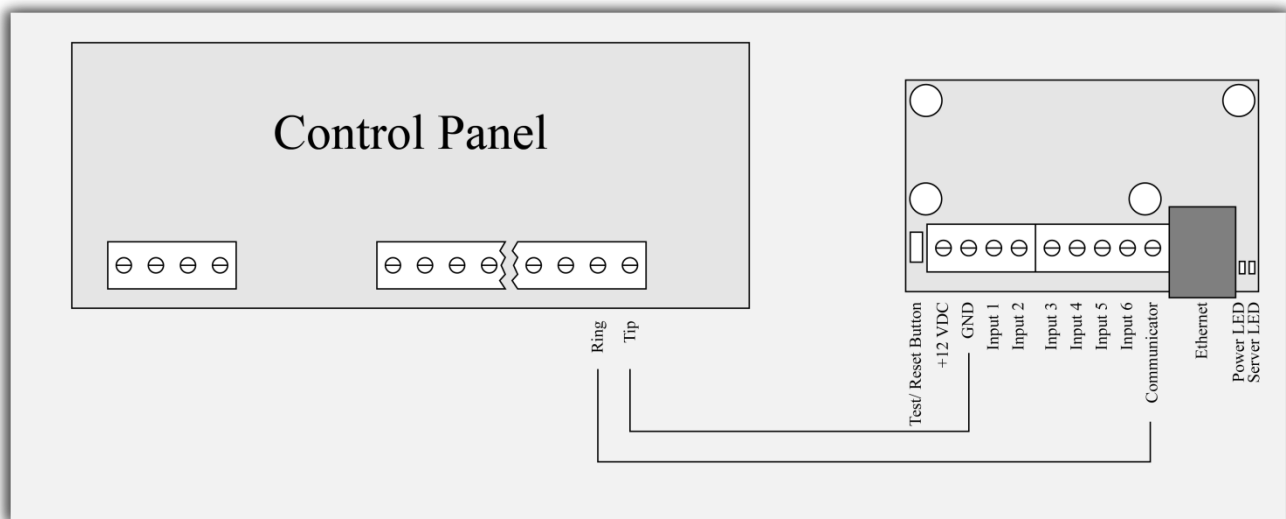
9.   Hardware Connections

9.1. Hardware AC
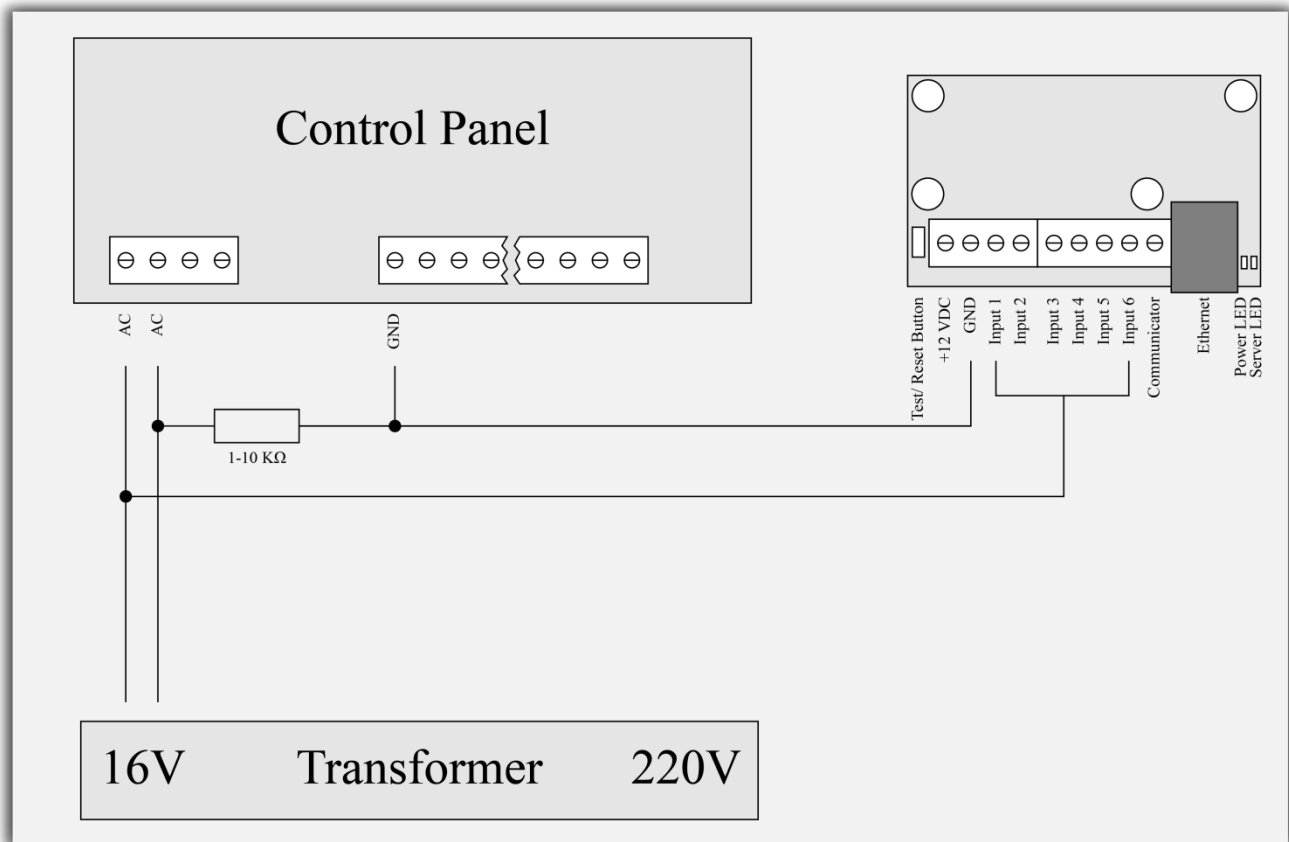
   Each of the digital inputs could be used as a "Hardware AC" input. In this mode it will monitor the AC and generate a message for "AC Loss/AC Restore".

9.2. Communicator/Dialer connection

IP Tau has a built-in communicator/dialer receiver. It can receive data from each security panel with communicator/dialer option. Settings for the security panel (in some models additional settings may also need to be made):

Phone Number: **9**
Protocol: **Ademco Contact ID**
Wait Dialtone: **Disable**

10. Windows Network configuration

If you want to access the web-server, your computer must be in the same IP subnet. You must change the settings of your network adapter (if they are different than needed).

If your computer is in a different network than: 192.168.1.xxx with mask 255.255.255.0 you will need to change your current configuration of Windows network:

Start → Control Panel → Network and Sharing Center → Change adapter settings → Right-Click on your network adapter → Properties → Right-Click on Internet Protocol Version 4 → Properties → Use the following IP address

IP Address :   192.168.1.xxx, xxx is between 2 and 254 and must be different than 230

Subnet Mask: 255.255.255.0